

August 2006 Update

F.E. Warren Air Force Base Superfund Site Cheyenne, Wyoming (5-Year Review Date)

Highlights Since the 2005 5-Year Review

- Land Use Control language updates made in 2005 and 2006

Brief Site History: F.E. Warren was a major training facility during and after World War II. In 1958 the base became a part of the Strategic Air Command. Since then it has served as an operations center for the Atlas Intercontinental Ballistic Missile (ICBM), later for the Minuteman I and III and finally for the Peace-keeper ICBMs. Studies indicated hazardous substances in 10 general areas (Operable Units) of the Base, including 13 landfills, two fire-protection training areas, six spill sites, base-wide groundwater, a firing range, a battery-acid disposal site and an open burning/open detonation area. The main contaminants are solvents and a variety of fuels, found in both the soil and groundwater.

The base occupies about 6,000 acres immediately west of the City of Cheyenne. It is bordered by agricultural land and suburban homes. Some of the groundwater contaminants had moved beyond the base boundary to the east.

Cleanup Activities Completed: In August 1985, preliminary assessments at F.E. Warren were begun to determine whether the base had environmental issues that should be addressed in greater detail. From these assessments, the base was placed on the National Priorities List (NPL) on February 21, 1990. Cleanup activities have included:

- Excavation and backfilling
- Permeable Reactive Barrier to minimize TCE concentrations
- Installation of a municipal water supply
- Landfill cover
- Land Use Controls
- Pump & treat
- Oxidation and Monitored Natural Attenuation (MNA)

Current Status: Investigations will continue to study contamination and risks so that final, long-term remedies can be evaluated. Investigations are in progress for an open burn/open detonation area, seven spill sites and two landfills.

Summary of Protectiveness: No immediate threats were found, and the remedies for these sites are, or are expected to be, protective of human health and the environment.

Issues Impacting Protectiveness: Land use controls such as dig permits and limited access have been implemented that are protective of human health and the environment until final remedies are selected for all of the sites. There are no foreseeable changes in

the way F.E. Warren conducts its remediation activities. Therefore, the site remedies should continue to be protective of human health and the environment.

**F.E. Warren Air Force Base Superfund Site
Five-Year Review 2005 Update Table
(Review Date January 2005)**

Issues	Recommendations/ Follow-Up Actions	Follow-Up Actions (Status/Due Date)	Status of Follow- Up actions as of 08/06	Responsible Party
1. Presence of vinyl chloride down gradient from permeable reactor barrier wall	Continue monitoring to determine if measures taken were successful to prevent the groundwater conduit to the permeable reactor barrier wall	If high vinyl chloride concentrations continue in the area, alternative measures should be reviewed.	Semi-annual monitoring.	USAF
2. Maximum concentration limits (MCL) for TCE are expected to be reached in 22 years.	. Monitored natural attenuation (MNA) needs to be reviewed as more information becomes available	If MCL's are reached MNA should be continued as a stand-alone option.	Monitoring continues semi-annually	USAF
3. Update needed on Land Use Control language for OU 8.	Adopt the language agreed upon in the recent Records of Decision and found in other operable units.	An Explanation of Significant Differences needs to be written and submitted for Agency approval.	An ESD was not needed. Minor changes were documented in a memorandum to the Administrative Record dated June 28, 2005.	USAF
4. Update need on Land Use Control language for OU 9.	Adopt the language agreed upon in the recent Records of Decision consistent with other operable units, such as for OU 12.	Updated by inclusion into the ROD for OU 2, signed August 2006	Completed.	USAF